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## Response to Twitter Discussion on HA and Tendon Injections

There have been a couple of recent exchanges relating to Hyaluronic Acid and Ostenil® Tendon (Sodium Hyaluronate with Mannitol), in relation to topical injection therapy for various tendinoses, which I've read with interest. Some were positive, some equivocal. I did note the fairly lurid picture of an inflamed patella tendon, which displayed what appeared to be frank signs of either bio-mechanical/traumatic, or possibly chemical insult – maybe a combination of all 3 - on the margin. The contributor of the picture attributes the inflammation / tissue damage to "Inadvertent HA injection in to the tendon." I think it's only reasonable to point out that neither the contributor, nor any of the Twitter followers who may have participated in the forum exchanges, have any way of categorically verifying the condition of the tendon prior to the surgical intervention, or for how long before surgery the tendon had been in that condition. It wasn't clear to me who had "inadvertently" injected HA in to the tendon, I assumed it wasn't the contributor of the picture, therefore the correlation between an HA injection and the condition of the tendon came from a 3<sup>rd</sup> party or the patient. Whether any other agent had also been injected, either before or after the HA injection but prior to the surgical intervention is not determined.

I appreciate that there may well have been non-invasive imaging carried out prior to the surgery, but even so, the correlation of the condition of the tendon with an injection of HA is purely speculative. If the injection in to the tendon body was inadvertent, one must assume that the injection was not done under guided visualisation, so again, the trauma may have been wholly or partly induced or exacerbated by an inexperienced clinician digging around with a needle.

Unless patients are elite sports players, steroid is still commonly used as a first line intervention for painful tendinosis. The degenerative effects of steroids on tendon tissue are well elucidated. I would also like to point out that to inject HA into the meatus of the tendon itself is extremely difficult and takes a considerable amount of force. Again, if the injection was given by a practitioner unused to injecting HA, it is possible that the trauma to the tissue from forcing HA into the tendon could result in an inflammatory response, the reaction would be to the needle and the high pressure disruption to the tendon ultra-structures. HA is an intrinsic component of the tendon matrix, and as such, will not elicit an inflammatory response per se. So I feel it's important to reiterate that Ostenil® Tendon is only intended to be injected into the tendon sheath, or where there is no sheath, the paratenon. For more information or for references to clinical research on this subject, please visit our website.

<http://ostenil.trbchemedica.co.uk/>

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